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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,752	09/05/2007	Manuswamy Ramanujam Vijayalakshmi	KNSI.001APC	4327
20995 7590 10/06/2010 KNOBBE MARTENS OLSON & BEAR LLP 2040 MAIN STREET FOURTEENTH FLOOR IRVINE, CA 92614				
EXAMINER DEES, NIKKI H				
ART UNIT 1781		PAPER NUMBER		
NOTIFICATION DATE 10/06/2010		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jcartee@kmob.com
efiling@kmob.com
eOAPilot@kmob.com

Office Action Summary

Application No.

10/550,752

Applicant(s)

VIJAYALAKSHMI ET AL.

Examiner

Nikki H. Dees

Art Unit

1781

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 14-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 14-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 10-20 have been renumbered 12-22.

2. Claims 2, 9 and 11 are objected to because of the following informalities: in claims 2 (g), 9 and 11 change "tile" to "the". In claim 11, change "(d)" to "(d),"

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 2-11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to

which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 2 step (f) allows the jam mixture to cool to room temperature before adding the food preservative. Although this step is recited at page 3 of the specification, it is contrary to all Examples in the Specification, where it is taught that the sodium benzoate is dissolved in warm water and added to the jam mixture before filling hot into glass bottles. One of ordinary skill would also recognize that upon cooling to room temperature, the jam begins to gel. The gelling would make difficult the uniform addition of the food preservative, or any other additive. Further, hot filling into sterilized jars is known for shelf stability of jams. There is insufficient guidance provided such that one skilled in the art would cool the jam to room temperature before adding the preservative. Therefore, to produce jam as claimed, having a "higher shelf life" according to the claimed method would require undue experimentation.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1, 2, 11, 14 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
7. Claim 1 step (c) calls for adding additives "such as" sweeteners, etc. The phrase "such as" is indefinite as it is unclear, which, if any, of the listed sweetening agents, preservatives, settling agents, and food additives are to be added. For purposes of

examination, the addition of any substance other than the fruit or water will be considered to meet the claimed additives.

8. Claim 2 step (b) claims a ratio of sweetening agent to custard apple pulp. The basis (e.g. wet weight or dry weight) of this ratio is unclear. For purposes of examination, the ratio will be understood to be based on the wet weight of the pulp to dry sweetener.

9. Claim 2 step (g) calls for adding "permitted" food preservatives. It is unclear who is to determine what food additives are permitted or not, rendering the scope of the claim unclear.

10. Claim 11 claims the partially dehydrated pulp is mixed with sugar, pectin and citric acid. It is unclear what the claimed percentages of sugar, pectin and citric acid are based on, as they do not add up to 100%. For example, are the claimed percentages based on the amount of custard apple pulp, the syrup which is said to be added in claim 2 step (d), or the entire composition including pulp and syrup?

11. Claim 14 limits the temperature in step (c) of claim 2 to the range 95°C to 98°C. However, claim 2 step (c) calls for dehydrating at a temperature of below 55°C. Claim 2 step (e), claims boiling the mixture. For examination, the temperature range of claim 12 will be considered to apply to step (e) of claim 2.

12. Claim 17 claims percentages for the components of the jam. While these percentages are based on weight, they fail to take into consideration the moisture content of the jam, which would be significant (e.g. about 29%). As the custard apple

pulp comprises moisture, it is unclear how the claimed percentages translate to the final jam product.

13. Claim 21 recites the limitation "the flavoring agent" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

16. Claims 1 and 16-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over McGee (McGee, H. 1984. On Food and Cooking. pp. 170-172) in view of Rao (Rao, S.N. 1974. "Anonas the legendary fruit." Indian Horticulture, Agric. Coll. Bapatia,

Ap. India. Vol. 19. pp. 19-21) and Dauthy (Dauthy, M.E. 1995. "Fruit and Vegetable Processing." FAO Agricultural Services Bulletin 119, Section 5.3 "Chemical Preservation." Retrieved on Sept. 20, 2010 from <http://www.fao.org/docrep/v5030e/v5030e0d.htm>).

17. Regarding claim 1 McGee teaches a method for making a fruit preserve. McGee notes that fruit is simmered gently to extract pectin. This step would inherently partially dehydrate the mixture of fruit. The sugar, acid and pectin are then added and boiled until concentrated (p. 172). McGee teaches lemon slices as the source of acid. Lemon slices contain citric acid. It is understood by one of ordinary skill that after the mixture is boiled it is cooled, as this is when the pectin gels to form the jam.

18. The addition of sugar to the pulp before cooking and after the pulp has been cooked is considered to be an obvious variation. McGee notes that cooking in sugar syrup helps to maintain the integrity of the fruit, as well as the taste of the product (p.171). One of ordinary skill would have been able to determine when to add sugar to the process in order to provide the desired consistency and taste to the final jam product.

19. Regarding claim 17, McGee teaches a sugar concentration of 60 to 65% as "generally optimal". However, one of ordinary skill would have recognized that a slight difference in sugar content as obvious based on the fruit being preserved. Therefore, a claim where the range of sugar content touches the range taught by the prior art are considered to be obvious. McGee further teaches a pectin concentration of 0.5 to 1.0%.

20. Rao teaches jam produced using the custard apple fruit (p. 20 col. 1).

21. It would have been obvious to use a known method for producing jam, as taught by McGee, to produce custard apple jam, as the custard apple is known to be made into jam, as taught by Rao.

22. The combination of McGee and Rao is silent as to the presence of the food preservative sodium benzoate in an amount as claimed.

23. Dauthy teaches sodium benzoate as a common preservative for use in foods including jams (Sec. 5.3.3.1). Commonly used levels range from 0.03 to 0.2 %, overlapping Applicant's claimed range.

24. As sodium benzoate is known as a preservative for use with jams, it would have been obvious to add sodium benzoate to jam in order to provide the jam with increased microbial stability. It is considered obvious to use known compounds (i.e. sodium benzoate) for their intended use (i.e. increased microbial stability) to impart expected characteristics (i.e. said stability) to foodstuffs.

25. Regarding the method of claim 1, from *In re Levin*, 84 USPQ 232 p. 234 "This court has taken the position that new recipes or formulas for cooking food which involve the addition or elimination of common ingredients, or for treating them in ways which differ from the former practice, do not amount to invention merely because it is not disclosed that, in the constantly developing art of preparing food, no one else ever did the particular thing upon which the applicant asserts his right to a patent. In all such cases, there is nothing patentable unless the applicant by a proper showing further establishes a coaction or cooperative relationship between the selected ingredients which produces a new, unexpected, and useful function. *In re Benjamin D. White*, 17

C.C.P.A. (Patents) 956, 39 F.2d 974, 5 USPQ 267 ; *In re Mason et al.*, 33 C.C.P.A. (Patents) 1144, 156 F.2d 189, 70 USPQ 221.

26. McGee further notes that methods of making jam are old and vary widely (p. 171). Therefore, as all aspects of the instantly claimed method are known in the prior art, and are used predictably to produce a jam, it is considered obvious to produce a custard apple jam where the fruit is first partially dehydrated, followed by further processing with traditional jam ingredients.

27. Claims 16-22 are product-by-process claims. Patentability does not depend on method of production, rather the product made. The different method of making does not make the product patentable over the prior art. As the combination of McGee, Rao and Dauthy teaches a method for making custard apple jam, including components as required by instant claims 16-22, it is considered inherent that the custard apple jam produced by the combination of McGee, Rao and Dauthy would have the longer shelf life and more favorable organoleptic properties as claimed.

28. Claims 2-11, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over McGee (McGee, H. 1984. On Food and Cooking. pp. 170-172) in view of Rao (Rao, S.N. 1974. "Anonas the legendary fruit." Indian Horticulture, Agric. Coll. Bapatia, Ap. India. Vol. 19. pp. 19-21), Braman (Braman, T.F. 1922. "Use of Vacuum Pan for Fruit Products." The American Food Journal. Vol. 17. pp. 9, 10, 26), Francis (Francis, F.J. 2000. Encyclopedia of Food Science and Technology. 2nd Ed. pp. 1149-1153), and Dauthy (Dauthy, M.E. 1995. "Fruit and Vegetable Processing." FAO

Agricultural Services Bulletin 119, Section 5.3 "Chemical Preservation." Retrieved on Sept. 20, 2010 from <http://www.fao.org/docrep/v5030e/v5030e0d.htm>).

29. The combination of McGee, Rao, and Dauthy teaches a custard apple jam as applied to claim 1 above.
30. Regarding claim 2 step (e), McGee teaches a sugar concentration of 60 to 65% (i.e. approximately 60°B to 65°B) as "generally optimal". However, one of ordinary skill would have recognized that a slight difference in °B as obvious based on the fruit being preserved. Therefore, claims where °B varies by only a few degrees over the teachings of the prior art are considered to be obvious.
31. Regarding claim 2 step (g), Dauthy teaches sodium benzoate as a common preservative for use in foods including jams (Sec. 5.3.3.1). Commonly used levels range from 0.03 to 0.2 % (300 ppm to 2000 ppm), near to Applicant's claimed range. The determination of the acceptable amount of sodium benzoate to achieve the desired microbial stability would have been routine to one of ordinary skill in order to minimize the amount of preservatives present in the jam, while maximizing the microbial stability of the jam.
32. Regarding claim 10, McGee teaches lemon slices as the source of acid. Lemon slices contain citric acid.
33. Regarding claim 11, McGee teaches sugar concentration after the mixture has been boiled, a pectin concentration of 0.5 to 1.0% and the pH of the mixture.
34. McGee is silent as to jam being produced from custard apple.

35. Rao teaches custard apple jam as a means for preserving custard apple. Rao notes that the production has been attempted "with success" (p. 20 col. 1).

36. Regarding claim 3, Francis teaches that fruits used to produce jams should be fresh and ripe (p. 1149, col. 1).

37. Regarding claim 4, the prior art does not speak to the method of obtaining the pulp. However, as Rao speaks to the edible nature of the pulp (p. 19), it would have been obvious to one of ordinary skill to utilize said pulp for the production of the jam. The method of removing the pulp, using a pulper or otherwise, would not have been expected to materially alter the outcome of the jam absent convincing arguments or evidence to the contrary. Further, the removal of seeds from the pulp is considered to be obvious, as it is common to remove seeds from fruits to be made into jams in order to provide the jam with an organoleptically acceptable texture.

38. The combination of McGee, Dauthy, and Rao is silent as to dehydrating the pulp under vacuum.

39. Braman teaches the use of vacuum in the preparation of jam products. It is noted that cooking under vacuum helps to preserve fruit flavor and color (p. 26, col. 2). Braman does not teach specific temperatures and pressures as required by claim 2 step (c) or claim 6. However, as Braman speaks to the improved attributes of jam processed at least partially under vacuum, it would have been obvious for one of ordinary skill to incorporate a vacuum step in a jam making process in order to improve the flavor and color of the jam.

40. From *In re Levin*, 84 USPQ 232 p. 234 "This court has taken the position that new recipes or formulas for cooking food which involve the addition or elimination of common ingredients, or for treating them in ways which differ from the former practice, do not amount to invention merely because it is not disclosed that, in the constantly developing art of preparing food, no one else ever did the particular thing upon which the applicant asserts his right to a patent. In all such cases, there is nothing patentable unless the applicant by a proper showing further establishes a coaction or cooperative relationship between the selected ingredients which produces a new, unexpected, and useful function. *In re Benjamin D. White*, 17 C.C.P.A. (Patents) 956, 39 F.2d 974, 5 USPQ 267 ; *In re Mason et al.*, 33 C.C.P.A. (Patents) 1144, 156 F.2d 189, 70 USPQ 221.

41. McGee further notes that methods of making jam are old and vary widely (p. 171). Therefore, as all aspects of the instantly claimed method are known in the prior art, and are used predictably to produce a jam, it is considered obvious to produce a custard apple jam where the fruit is first partially dehydrated, followed by further processing with traditional jam ingredients.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikki H. Dees whose telephone number is (571) 270-3435. The examiner can normally be reached on Monday-Thursday 7:30-4:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. H. D./

Nikki H. Dees
Examiner
Art Unit 1781

/Keith D. Hendricks/
Supervisory Patent Examiner, Art Unit 1781